IV. Remarks

Reconsideration and re-examination of this application in view of the above amendments and the following remarks is herein respectfully requested.

Claims 1-30 remain pending.

Claim Rejections - 35 U.S.C. § 112

Claims 1-30 were rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter of the invention.

The phrase "such as a housing part" and "such as a plug part" have been removed from claim 1 to more particularly point out and distinctly claim the subject matter of the invention. Accordingly, applicants respectfully request withdrawal of the rejections under 35 U.S.C. §112.

Claim Rejections - 35 U.S.C. §103(a)

Claims 1-9, 15-16, 21, and 23-24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Enger, et al.

Claims 10-14 were rejected under 35 U.S.C. §103(a) as being unpatentable over Enger, et al.

Claims 17-20, 22 and 25-30 were rejected under 35 U.S.C. §103(a) as being unpatentable over Enger, et al.

Claim 30 was rejected under 35 U.S.C. §103(a) as being unpatentable over Enger, et al. in view of EPO patent publication 1,213,515.

Enger does not deal at all with the problem of fluid permeation through a seal. Rather, Enger deals with securely locking a coupling for a pressurized medium to prevent leakage between the coupling parts and the seal. Accordingly, the various combinations in claims that the examiner has dismissed, as merely optimizations of Engler, act in conjunction to solve a problem not even contemplated by the Engler reference.

Generally, the main sealing problem, which is considered by a person skilled in the art, does not include the problem of fluid permeation through the seal, but instead includes how to prevent a leakage stream through the gap between the coupling parts, which have to be connected. The knowledge of a person skilled in the art fails to provide information how to solve the problem of fluid permeation through the seal. Only using hindsight could one use Enger which describes a connection system that prevents leakage through the gap between the seal and the coupling parts and modify it to prevent fluid permeation through the seal.

Further, the Enger reference requires the use of a special locking ring, which is not a constituent of the present invention. In contrast, the system described in the instant application provides a connection system without additional necessary supporting or mounting aids for the seal (page 6, first paragraph of the description). So, starting from Enger, a person skilled in the art would not be motivated to solve the problem of fluid permeation through the seal.

In addition, a person skilled in the art trying to solve the problem of fluid permeation through the seal does not receive any suggestions from Enger how to do so.

The claims according to the present application show not only one technical feature, which is different from the Enger reference, but a complex combination of features that interact together, which has been conceded by the Examiner not to be taught by the Enger reference. The respective characteristics include the cross section of the non-compressed seal, the cross section of the compressed seal, the contact length, the groove depth, the gap width and the groove length, which are coordinated with one another in a special way. The possibility of variation and the coordination of these characteristics are not mentioned at all in Enger. Therefore, coordination according to claim 1 of the invention is not the result of a simple optimization. Neither the Enger reference mentions these parameters as being of importance for the fluid permeation, nor has a person skilled in the art any indication for optimizing the groove and seal geometry.

An optimization process necessarily has to contain a parameter which has to be maximized or minimized, i.e. a criterion which shall have the optimum, furthermore edge conditions which have to be fulfilled and at least one variable parameter to alter. To find out what could be such characteristics is not an optimization but the result of a problem solving process. Notwithstanding the foregoing, a further optimization using the teaching of the invention may be possible.

Accordingly, applicants respectfully request withdrawal of the objections under 35 U.S.C. §103.

Conclusion

In view of the above amendments and remarks, it is respectfully submitted that the present form of the claims are patentably distinguishable over the art of record and that this application is now in condition for allowance. Such action is respectfully requested.

Respectfully submitted by,

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